

## Solar module SUSE 4.50

5 W solar module with DC-DC converter with USB port for 5 V DC  
for the connection to smartphones/tablet PCs or for charging powerbank rechargeable batteries  
with binding posts for photovoltaic experiments



The solar module SUSE 4.50 is a professional and robust solar module with 18 solar cells in internal series connection behind glass, framed with a stabile aluminium frame. On the back side there is a DC-DC converter inside a small metal casing (electronics box), which keeps the fluctuating voltage (through changing sun radiation) on a constant value of 5 V DC, the output socket is a standard USB port, at which smartphones, tablet PCs, or netbooks may be operated and charged, the maximum current is 620 mA. Powerbank rechargeable batteries can also be charged here. 2 LEDs signalize the operation status: An orange LED shows the standby of the solar module, a green LED the 5 V DC at the output. A pair of binding posts is connected directly to the output of the solar module and can be used for PV experiments, lab wires can be plugged in or hookup wire can be clamped.

On the module's back side an adjustable positioner is mounted to help position the module in an ideal angle to the solar altitude on the ground or on a table.

Inside the electronics box on the back side there is the DC-DC converter with the USB port with 5V DC output.

The **electronics box on the back side** with the orange glowing LED for the PV input and the green glowing LED for the output 5 V DC status display of the USB port.

The red/black binding post pair is connected to the output of the solar module (10.2 V / 620 mA) and can be used for PC experiments.

### Complete view of the back side

The positioner with a wing nut allows the precise positioning in a specific angle on the ground or a table with an ideal adjustment towards the sun. By measuring the short-circuit current at the binding post pair the module can be positioned exactly to the current solar altitude.

